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ABSTRACT

Any proposal for training has to satisfy two major components: it must be job relevant and be accomplished without major interruption of work schedules, while incorporating strategies to help eliminate absenteeism. One recently developed model for basic skills training, the Immersion Instructional Model, meets these criteria and provides significant gains in reading and mathematics for the labor force. Conducted on company time for each work force level, this model has proven itself in a variety of business and industry settings. Based on the needs of the organization, sessions run from 2-4 hours daily for a period of 2 weeks. The model uses needs analysis (preparation) and program delivery (operations) as interlocking elements for delivery of work force tailored training. The needs analysis involves an audit of the workplace, setting of learning objectives, formulation of activities to achieve objectives, and selection of instructional materials and personnel. During the operations phase, appropriate instructional methodologies are broken down into specific learning tasks and sequenced into a daily schedule. Assessment provides checkpoints as well as feedback of objective attainment. This model has been conducted at a major midwest university; personnel of the residence and dining halls work force were targeted. Findings show employees averaged a gain of two reading levels. One year later, employees were continuing to learn, study, and achieve in basic skills. (YLB)

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THE IMMERSION INSTRUCTIONAL MODEL: A REPORT FROM THE WORK PLACE

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ABSTRACT

One stumbling block to upgrading training for any group of employees is the aspect of employee absenteeism. Many times the proven success of excellent training cannot overcome the need to keep the worker on the job. Any proposal for training has to satisfy two major components: it must be job-relevant; and it must be accomplished without major interruption of work schedules, while incorporating strategies to help eliminate absenteeism. One recently developed model (Immersion Instructional Model) for basic skills training meets these criteria and provides significant gains in reading and mathematics for the workforce.

A Department of Labor publication, Workforce 2000, states that "...at the present time the work force is aging, becoming predominately female, and becoming less willing to relocate, retrain, or change occupation, yet the economy is demanding more flexibility and dynamism." Thus, existing employees must be trained at the wokplace.

In this country the overall cost to U.S. employers, for formal training programs, is between 30 and 44 billion dollars yearly. Employers are spending money on training, but the employees who are most likely to receive it are at the supervisory level. The employees who need comprehensive training are least likely to receive it. Training too often begins and ends with the supervisors.

Anthony Carnevale in his research noted that "more than half of the productivity increases in the U.S. between 1929 and 1987 were due to learning on the job." The American businessman recognizes the value of training; he is willing to "train on the job." He must direct the training to those most in need. The Immersion Instructional

ABSTRACT

Model permits him to direct and focus the training and to establish priorities.

The Immersion Training Model, conducted on company time for each work force level, has proven itself to be a viable employee training procedure. It works in a variety of business and industrial settings. Based on the needs of the organization, sessions run from two to four hours daily for a period of two weeks. The model uses needs analysis (preparation) and program delivery (operations) as interlocking elements for delivery of work force tailored training.

The needs analysis begins with an audit of the workplace to determine the required knowledge and skills set for employees at all levels, and to determine where these requirements arise. Manuals, internal correspondence, safety bulletins, and other pertinent forms of communication are collected and assessed. Ethnographic approaches for employee interviews and observations are used to collect field information. Readability levels of all materials are calculated.

Upon completion of the data collection, specific learning objectives are set and activities are formulated to achieve these objectives. Instructional materials are selected and personnel are identified and counseled about the training program. All aspects of the training are established with a knowledge of the workplace setting to ensure that it is job-relevant.

During the operations phase, appropriate instructional methodologies are broken down into specific learning tasks and sequenced into a daily schedule. Employers are then presented with a package consisting of the needs analysis data,

learning objectives that must be addressed through training, and a plan to accomplish the objectives. Then a decision is made; Go or No Go.

Instructional strategies vary with each program, but some of the most common ones include creative questioning, workplace vocabulary, group discussion, peer tutoring, directed studies, and workplace simulations. All are designed to maximize learner involvement in the instructional process.

Assessment plays a major role in the operational stage because it provides checkpoints, as well as feedback, of objective attainment. Pre-assessment, using instruments chosen by the employer, are administered to provide a baseline from which each employee will operate. Instructor-prepared and objective specific assessments provide formative evaluation of daily activities. Post assessment, when compared to pre-assessment, yield gain scores for each employee.

This training model has been used in several settings - a large medical center, a Department of Defense establishment, a major city sanitation department, and a major university's residence halls employee group. In each case, there were significant gains in learner performance. using the reading scores as a specific example, employees averaged a gain of two reading levels. When mathematics was taught, employees averaged a1.6 math grade level increase. studies, one year after the training was conducted, indicated that employees were continuing to learn, study, and achieve in basic skills.

Current Conditions

The subject of literacy of the workforce has moved beyond the individual issue and has been joined with the concerns of business and industry. A worker desiring stable employment, a job holding out the prospect of stability with opportunity for upward movement, has to advance educationally. In the same manner, a business that wants to stem the expensive process of constantly hiring and training its workforce must include adult education of its employees as a integral part of doing business. Three major factors have combined to press this issue home to both groups of players. Those are the rapidity of constrictions and expansions in the number of jobs available in the workplace at any time, the continuous advancement of skills needed to operate new and updated tools and machines in the workplace and the higher order of problem solving needed to operate successfully in an more sophisticated environment

One of the more serious drawbacks to implementing training to upgrade any segment of a workforce is the aspect of missed work, time away from the primary task. Even the proven reward that comes with advanced and additional training cannot, in many cases, overcome the need to keep the worker on the job. Therefore, to be assured of a fair hearing and open consideration by management any training proposal has to satisfy two important points; it must be job-related and it must be accomplished without serious disruption of the normal work schedule. The Immersion Instructional Model described in this paper has empirically satisfied those two conditions.

A Workable Solution

The Immersion Instructional Model has been piloted in several formats. They

include using two hour blocks of time per day for up to four weeks through a full eight hour day for two weeks. These pilot classes have been conducted in a variety of settings with comparable results across the board. The Immersion Instructional Model is not pegged to any specific grade level, in fact classes are drawn to ensure the presence in each of the range of abilities existing in the total workforce. In this way the class offers the advantages highly desirable in conducting adult education activities. There is a broad range of experiences present, higher ability persons can engage in peer tutoring, there is no chance of negative labeling, and there are conditions present to increase the level of communications within the organization.

The Process of the Model

The first step taken in implementing the Immersion Instructional Model is to conduct a needs analysis. This analysis is done on-site and serves a two-fold purpose. First, the population from which the classes will be drawn have to be observed and interacted with in a normal situation, on the 'home court', so to speak. Second, there has to be direct observation of the reading materials used in the workplace and an observation of how the workers make application of mathematics, problem solving, and other academic subjects. It is from this real world that materials used in the Immersion Instructional Model are taken for use in the class sessions. This close linkage of workplace and training provides the foundation for the model. Not only is the material to be worked with highly job related and relevant, but the workers will spend a portion of each day applying newly learned techniques. They will be in a continuous feed back loop of learning - applying - refining. The organization will have the worker on the job each day for some time as opposed to no production hours at all. This makes scheduling easier for the organization.

After interaction with the target population and their understanding the nature of what can occur they are given the opportunity to participate. A standardized reading test is administered to all who indicate a desire to go on. The results of these tests are held as grouped data and the scores are not shared with the workers or with the organization on a by name basis. The readability level of workpalce materials is also calculated and is shared with the organization. The reading performance level of the workforce, the reading level of workplace materials and other data are then presented to the decision makers of the organization along with recommendations for some form of the program, if indicated. This is the go-no go point. A go decision moves the model into the next phase - operations with the setting of the dates for training, selection of materials to be used, designation of a training area and other administrative actions. The training materials selected include company personnel handbooks, organizational newsletters, safety bulletins, and equipment operation manuals. These materials are augmented with the daily newspaper in that area and adult education texts. All of these materials are folded into a curriculum that uses directed reading, free reading, group activity, simulations and other educational strategies designed and sequenced to meet the needs developed during the initial analysis.

Most of the workers that participate in these classes have not had to make full use of their mental abilities in daily activities for some time. They are in a rut. Because of this their functioning level of literacy has been diminished by the routine that makes few growth-producing demands. They are like the airplane set on autopilot. This model is designed to put that 'plane' back on manual control, to set a new heading, and to both rekindle old skills and learn the existence of new ones. The model serves as a stimulus and increases their overall knowledge base. By putting academic material into a job-related and life enhancing format, quicker connections are realized,

firmer applications are understood and a faster rate of learning takes place.

A Case Report

The following is a walk through of an application of this model as it was conducted at a major mid-west university. The personnel of the residence and dinning halls workforce were the targeted group. These persons were, for the most part, performing custodial duties at several residence hall clusters around the campus. Each location responded through a different reporting chain within the overall division. They were all aware of each other as individuals but still engaged in good natured competition regarding which area had a better record, worked harder, and overcame more difficult obstacles. After conducting the needs analysis the workforce was given an opportunity to sign up and to take the pretest, a form of the Gates-MacGinitie reading test. An initial group of twenty persons was selected. The initial desire was to use two criteria; a reading level score that was 4.0 or greater and a demographic-based decision to have the group approximate the age, race, and gender ratios found in the total population. In order to get around certain working schedules it was necessary to use employees that scored below the 4.0 level. The mean reading level for the first group was 4.8 on the Gates-MacGinitie scale.

Daily Activity

The daily outline for the group was similar to the example of a sequence of activities shown in figure 1 on the following page. From time to time, however, there were changes in sequence and content. The key to effectiveness of the curriculum is flexibility. At one point in the delivery to this group it had been planned to use the organization's worker's Handbook. This, however, proved to be impossible to carry through with because of some existing hard feelings between labor and management

over some contract topics. When the Handbook was introduced it evoked such a

IMMERSION TRAINING MODEL SCHEDULE

DAY 1	DAY 2
Introduction and Overview	Using the Newspaper
Icebreaker and refreshments	Comprehension Exercises
How Adults Learn	Group Process Exercises
Note Taking and Communication	Simulation
DAY 3	**DAY 4**
The Newspaper	Strange Words
Outlining	Comprehension Exercises
Workplace Reading	The Newspaper
Comprehension Exercises	Reading Exercises
DAY 5	**DAY 6**
Workplace Reading	Writing Exercises
The Newspaper	Facts or Opinions?
Comprehension Exercises	Workplace Reading
Writing Exercises	Reference Reading
DAY 7	**DAY 8**
Group Process Exercise	Oral Presentations
The Newspaper	Oral Presentations
Comprehension Exercises	Reading Exercises
Reading Exercises	Applications
DAY 9	**DAY 10**
Workplace Reading	Review and Discussion
The Newspaper	Final Writing Exercise
Comprehension Exercises	Post Test Administration
Educational Opportunities	Closing Ceremony

fig. 1.

strong negative emotional response that it had to be discarded. If an attempt had been made by the group instructor it would have seriously degraded the ability to produce growth and positive effects. During the needs analysis no hint of such a problem came up to the surface, but it is a matter that should be broached. Labor relations and contract negotiations are on the list of questions to ask about now. Instructors who use this model have to closely monitor verbal statement and non-verbal behavior in order to stay away from controversy that would be totally counter productive. During this same group a campus newspaper printed an article that intimated the participants

were undergoing adult basic education, completely not the case but very upsetting to the group. This controversy had to be met head on. The challenge was successfully met and the entire encounter was turned into a positive event.

Outcomes

During the needs analysis phase the pretest administered to all prospective participants was Form K, Level 7/9 from Gates-MacGinitie. On the tenth day of the model a post test was given using Form L of the same level Gates-MacGinitie test. Data was obtained from all twenty participants, however, only nineteen scores were usable. Of those nineteen scores there were sixteen reporting a higher reading level than on the pretest. There were three regressive score, more of which later. The mean increase for the group was almost two (1.94) reading levels. When the regressive scores were excluded the mean increase for the remaining sixteen was over four (4.29) reading levels. The three regressive cases were quite unique. One participants spouse suffered a heart attack three days prior to the end. There was a great deal of stress present in the participant which may explain the score. The second person suffered severe chronic eye problems yet had no prescription glasses. This participant used commercially purchased magnifying spectacles. Large print reading materials had been provided for this person throughout the course. The third person was found to have been blind on one eye for some years, a fact not known to coworkers or management. This person used a series of 'borrowed' glasses and was unable to read with clarity. After the blindness was discovered an examination of the pre test showed the use of a pattern scoring system which was again used on the post test. In spite of these three cases there was a marked positive improvement in the reading level of the participants.

Thirteen months after the completion of this model's application, the group was retested. The test used was from the Gates-MacGinitie series, however it was a Level 12 form, a more challenging test. The results of the second post test indicated a mean reading level of 7.64 for the group, an increase of almost one (0.89) reading level. The results indicate two major accomplishments. The first is that a substantial reading level gain accomplished in a relatively short and intensive period of time can

become embedded. The second result is that once started the effect can be sustained, albeit, at a slower pace through self-study and application. These data only reflect tested results. There is other data of an anecdotal nature that show greater appreciation for education, an improved self image, and a general positive feeling about many things that improve the quality of life. Likewise, there is anecdotal information from supervisors of participants that point to the growth of the participants and their becoming better employees. Table 1, on the following page, lists the pre and post test status for all of the participants.

The model, then, is successful in three basic ways: (1) the employer focuses training on those employees most in need, (2) the employees become more positive about the workplace and perceived value to the organization, and (3) the model provides training that transfers form the job to life in general. The Immersion Instructional Model works; it works for the employer and for the employee.

Table of Participants Reading Test Scores

Participant	Pre Test	Post Test		Change	
		Test 1	Test 2	Pre to Post 1	Pre to Post 2
1	5.3	3.4	6.2	(1.9)1	0.3
2	3.4	2.7	3.8	(0.7)2	0.4
3	5.8	8.4	9.2	2.6	3.4
4	3.4	3.4	4.7	0	1.3
5	4.6	5.3	6.0	0.7	1.4
6	4.2	7.4	7.6	3.2	3.4
7	6.3	3.4	4.1	(2.9)3	(2.2)
8	5.3	9.1	6.3	3.8	1.0
9	6.6	12.6	12.4	6.0	5.8
10	4.2	5.8	6.0	1.6	1.8
11	3.6	5.8	8.1	2.2	4.5
12	6.3	9.5	8.6	3.2	2.3
13	3.2	5.8	8.1	2.6	4.9
14	6.3	7.4	12.9	1.1	6.6
15	5.3	9.5	9.4	4.2	4.1
16	5.3	6.3	6.4	1.0	1.1
17	2.7	5.3	5.7	2.6	3.0
18	4.4	6.6	9.8	2.2	5.4
19	5.1	10.5	9.8	5.4	4.7

1,2,3 - indicates the persons who experienced the greatest difficulty due to personal problems.

Table 1.